STAWC – Shopper Tracker And Wristband Chasing-vehicle

User Manual

Group 8

Brief

Have you ever been shopping and left fuming by bad shopping carts with ruined wheels? Have you ever been tired and wished that you had someone to push your cart for you? Have you ever wished that you had an extra pair of hands while juggling a bulky item, and simultaneously maneuvering your cart? Well, we have just the solution that you are looking for! Enter STAWC – a cart that pushes itself, so that you can focus on the more important things like buying that latest must-have gizmo.

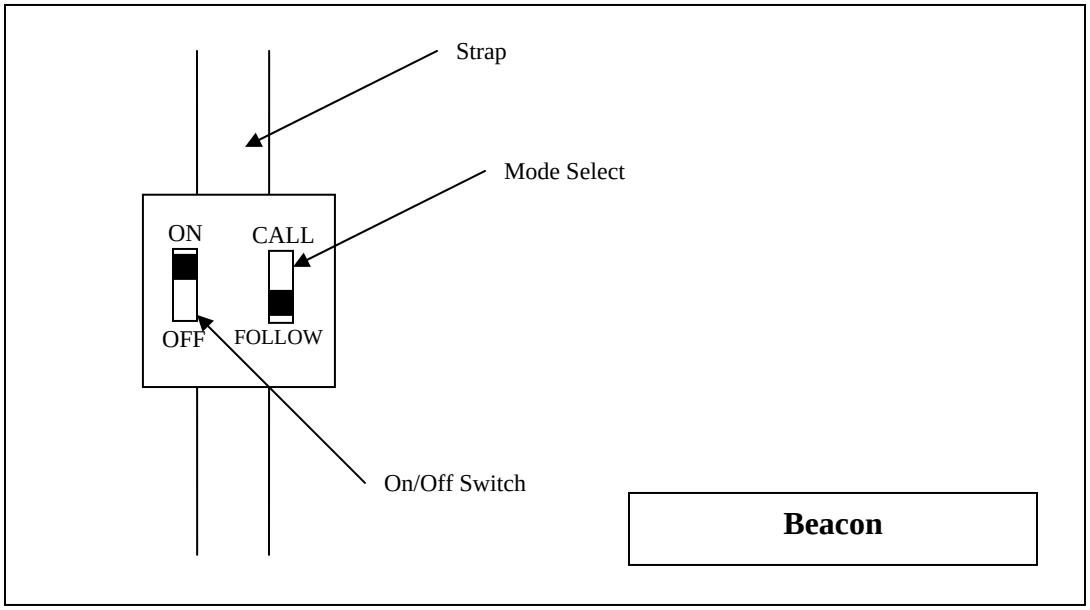
An object of desire with its sleek looks and intuitive interface, STAWC is a marvel of engineering design. It follows you around the store - even around corners and obstacles - so you never have to worry about crashing into another cart again. All you have to do is wear a wristband while walking around the store and the cart will follow you. If you slow down, the cart will slow down, and if you turn, the cart will turn to face you. You can even summon the cart closer to load/unload it.

The cart has the smarts to avoid obstacles, as well as to decode commands that you send it. It avoids obstacles by using infrared (IR) proximity sensors to detect any nearby objects and it then steers around them. The cart can be made to respond to three different user commands – 'Stop', 'Approach Shopper' and 'Follow Shopper'. These can be issued using the switches on the wristband. You can stop the cart from following you by issuing the 'Stop' command. The 'Approach Shopper' command makes the cart move closer to you allowing you to load/unload the cart. "Resume Normal Operations" will make the cart follow you at a fixed distance.

Future versions will also include a built-in re-charger, so that all you will need to do is plug the cart into an AC outlet, and it will charge itself. Right now, it requires a 9.6V power supply from externally rechargeable batteries, and a 12V battery for the transmitter.

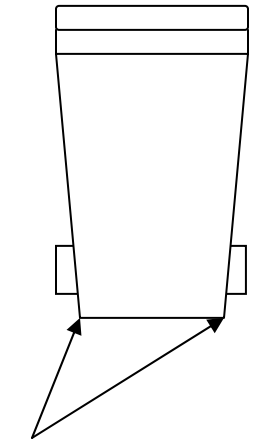
Disclaimer: Use of this cart may be detrimental to animals. Please refrain from using it in their vicinity, as the ultrasonic emissions will adversely affect them.

Product Illustration

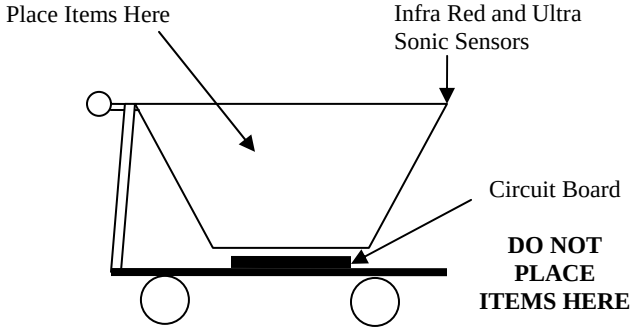


Beacon

Top View



Side View



Shopping Cart

Setup Instructions

First time use only:

The product is easy and intuitive to set up and use. When the product is ordered, you will receive a shopping cart with motors, wheels and PC boards already mounted on it. You will also receive a wristband tuned to control that particular cart. All that remains are the batteries (not included). You will need to purchase a 9.6V rechargeable battery pack, and mount it in the black battery pack holder on the cart. You will also need to purchase a 12V battery for the transmitter (recommended 1206). Unscrew the back plate of the wrist strap, and insert the 12V battery into the holder, before closing it back up.

Switch on the main board on the shopping cart to complete the connection, and the cart is ready. The wrist strap will also be operational. Flip the ‘On-Off’ switch to the ‘On’ position and the LEDs onboard the cart, as well as the wristband’s status LED should light up, and the cart should commence operations.

Please refer to the troubleshooting guide if this setup procedure fails for any reason.

Usage instructions

Our product is easy and intuitive to use. Once the shopping cart is powered on (red LED is lit on the cart), the only user interaction is with the wristband. To use the cart, perform the following steps:

1. Wear the wristband on your hand.
2. Make sure there are no LEDs lit.
3. Toggle the ‘On-Off’ switch to the ‘On’ position; the green ‘On’ LED should light up on the wristband. The red power LED on the cart should also be lit up at this point.
4. Now toggle the ‘Mode Select’ switch to ‘Follow’ mode. This places the cart in the ‘Follow Shopper’ mode, and it will begin to follow you around the store.
5. Feel free to peruse the store and selection what you wish to purchase.
6. Once you have decided on an item, set the ‘Mode Select’ switch to the ‘Approach Shopper’ position, and the cart will begin to approach you. Do not worry, the built in IR sensors will prevent any accidents. Load the item onto the cart, and flip the switch back to ‘Follow’, and continue shopping.
7. Note that in case of an emergency, toggle the ‘On-Off’ switch to the ‘Off’ position, and the cart will stop moving.
8. Once you are done shopping, and leave the check-out line, please proceed to the nearest station to return your wristband and cart.

Disclaimer: Use of this product may be detrimental to animals due to ultrasonic emissions. If you have any questions or concerns, please do not hesitate to contact our 24-hour customer service hotline at 1-800-DIGIJOKE.

Troubleshooting Instructions

Problem	Possible Solutions
Cart does not move when placed in 'Follow Shopper' or 'Approach Shopper' mode	1. Is green LED on wristband lit up? If not, please replace wristband battery. 2. Is red LED on cart lit up? If not, please recharge cart batteries. 3. Are the motors humming and yet not moving? If so, the cart is overloaded. 4. Are you standing more than 7' away from the cart during power up of wristband? If so, please move closer prior to power up.
Cart does not stop moving	1. Is the 'On-Off' switch on the wristband set to the 'Off' position? If not, please do so.
Suggested solutions do not fix the problem	Please call our 24-hour customer service hotline at 1-800-DIGIJOKE